The University Of Toledo

Existing Graduate Course Modification Form

* denotes required fields

Contact Person*: Daniel J. Hammel Phone: 530-4211 (xxx - xxxx) Email: dan.hammel@utoled.edu

Present

Supply all information asked for in this column.(Supply core, research intensive and transfer module info if applicable)

College*: College Lang, Lit, and Soc Sci

Dept/Academic Unit*: Geography and Planning

Course Alpha/Numeric*: GEPL - 5500

Course Title: Digital Image Analysis

Credit hours: Fixed: 04 or Variable: to

CrossListings:

Insert

To add a course, type in course ID and click the Insert button.

To remove a course, select the course on left and click the Remove button.

Remove

Prerequisite(s)(if longer than 50 characters, please place it in Catalog Description):

GEPL 5490 or EEES 5490

Corequisite(s)(if longer than 50 characters, please place it in Catalog Description):

Proposed

Fill in appropriate blanks only where entry differs from first column.

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Catalog Description (*only if changed*) 75 words max:

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Has course content changed? ○ Yes ◉ No

If course content is changed, give a brief topical outline of the revised course below(less than 200 words)

There is no change to content.

Proposed effective term*: 201740 (e.g. 201140 for 2011 Fall)

File Type	View File
Syllabus	View

List any course or courses to be deleted. Effective Date:

Effective Date:

Comments/Notes:

Rationale:

Several years ago GEPL changed its technology based courses from 3 to 4 hours to include a short laboratory component. Currently, four hour courses make it difficult for our graduate students to register for the required 9 hours. Four hour courses also make it difficult for MA students to finish their degree without going over the required 36 hours. We have decided to eliminate the lab component and reduce the class to 3 hours, but keep the content the same. Students will have to do more of assignments and projects independently, but we do not anticipate problems. Instructors and teaching assistance in the course are generally available and our computer laboratory is staffed by a graduate student monitor during most business hours with experience in remote sensing.

Approval:

Department Curriculum Authority:	Beth Schlemper	Date	2017/01/07
Department Chairperson:	Daniel Hammel	Date	2017/01/07
College Curriculum Authority or Chair:	David Black	Date	2017/01/27
College Dean:	Barbara Schneider	Date	2017/03/30
Graduate Council:	Constance Schall, GC mtg 4/18/17	Date	2017/04/19
Dean of Graduate Studies:	Amanda C. Bryant-Friedrich	Date	2017/05/01
Office of the Provost :		Date	

print

Administrative Use Only

Effective Date:	(YYYY/MM/DD)
CIP Code:	
Subsidy Taxonomy:	
Program Code:	
Instructional Level:	

Registrar's Office Use Only

Processed in Banner on:	

Processed in Banner by:	
Banner Subject Code:	
Banner Course Number:	
Banner Term Code:	
Banner Course Title:	

Syllabus GEPL 5500 Digital Image Analysis

Class: M W 11-12:15 pm **Office hours: MW 1-2:15**
Place: GEPL computer lab, Snyder Memorial, 2071
Dr. Kevin Czajkowski **Office: 3034 Snyder Memorial**
Email: Kevin.czajkowski@utoledo.edu **Phone: (419) 530-4274**

Objective: There are two main objectives for this class. The first is to expose students to the procedures involved in digital remote sensing. The second is to provide students experiences in the handling/processing of digital remotely sensed data. Another objective is to have you take some field observations so you gain experience in doing so. You will not learn everything about image processing, however, experience, practice, technical understanding and artistry all contribute to being a good image processor/analyst. What I hope you will learn over this semester is an introduction to critical components of image processing/handling, so that you can overcome the obstacles to remote sensing and learn how to teach yourselves given the building blocks learned in the class. Finally, I want you to walk away from class with an understanding of why remote sensing is a valuable tool for studying the earth.

Required text: James Campbell, Introduction to Remote Sensing, 5th Edition
ISBN-13: 978-1609181765
ISBN-10: 160918176X

Grades:

Projects:	65% of grade
Final Project Updates and Poster Presentation and written report	25% of grade
Graduate Research Paper	10% of grade

Students with Disabilities: The University will make reasonable academic accommodations for students with documented disabilities. Students should contact the Office of Accessibility (Rocket Hall 1820; 419.530.4981; officeofaccessibility@utoledo.edu) as soon as possible for more information and/or to initiate the process for accessing academic accommodations.

The potential projects are listed below. We will start with a land cover classification project including accuracy assessment.

Due Dates:
Project 1: Land Cover Classification: February 1, 2016
Project 2: topic to be determined: February 29, 2016
Project 3: topic to be determined March 23, 2016
Project 4: topic to be determined April 27, 2016
Research Paper: April 27, 2016

Data Sources: aerial photographs, Landsat, MODIS, ASTER, Hyperion, microwave/radar

Project Areas:
Water quality and how land cover influences it
Impacts of land use/cover on the energy balance
Monitoring of ice and snow
Fire detection
Development of 3D view of a city
Land cover classification – more in depth than last semester
Detection of algae
Object oriented remote sensing

Factors to focus on:
Georectification of imagery
Calibration and Validation
Atmospheric Correction

Date
January 18 No Class, MLK Day
January 20 - No Class, Dr. C will be out of town
March 7-11 – no class – Spring Break
March 28 and 30 – no class – Dr. C will be at AAG
Present your final presentation at the SATELLITES Conference. Date to be determined

Plagiarism.

With the spread of the internet as a source of information, plagiarism has become much more common. Often in the classes I teach, I will find that students copy and paste information off of the internet right into their homework. I found myself spending a lot of time reading 10 page answers to questions when the student just copied things off of the internet. I really got frustrated because I want to grade the students' work not the writing of someone from the internet. It was very easy for me to find copied material by using web browsers. I just need to type a couple of key words into a search engine and in seconds, the browser takes me to the page the person plagiarized.

To not plagiarize, you need to paraphrase what you learn and read on internet sites. If you find something interesting on a website that you would like to include in your sphere study, please do not use the copy and paste functions for any of it.

Watch a video on plagiarism at: http://www.youtube.com/watch?v=0yhOkgriDOo